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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,767

03/31/2004

Stanley L. Floyd

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WEYERHAEUSER COMPANY
INTELLECTUAL PROPERTY DEPT., CH 1J27
P.O. BOX 9777
FEDERAL WAY, WA 98063

EXAMINER

MILLER, ROSE MARY

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EK

Office Action Summary	Application No. 10/814,767	Applicant(s) FLOYD ET AL.	
	Examiner Rose M. Miller	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004 and 21 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14 and 17-26 is/are rejected.
- 7) ☒ Claim(s) 11-13, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25-26 are rejected as being indefinite as the phrase “the chemical composition measurement”, found on line 9 of claim 25, lacks a proper antecedent basis. The claim previously refers to a “galactan measurement” not a “chemical composition measurement”. A suggestion for correction is to replace “chemical composition” in the objected to phrase with “galactan” from the original recitation in the claim.

Claim 26 is rejected as it fails to correct the problems of claim 25 from which it depends.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, 14, and 17-24 are rejected under 35 U.S.C. 102(b) as being anticipated by **Stanish et al. (US 6,308,571 B1)**.

Stanish et al. '571 discloses a method for quantifying at least one lengthwise shrinkage of a wood product comprising obtaining at least one first data value indicative of a reactive force component to lengthwise shrinkage (acoustic energy and MOE), the first data value obtained at a measuring location along the wood product (see column 8 lines 42-54), obtaining at least one

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second data value indicative of a motive force component to lengthwise shrinkage (wood chemistry by IR spectroscopy, see column 14 lines 36-43), the second data value obtained at the measuring location along the wood product (see column 8 lines 42-54) and determining lengthwise shrinkage of the wood product based upon the first and second data values (see column 14 lines 24-58).

With regards to claims 2-6, **Stanish et al. '571** discloses at column 13, lines 43-64 sending an ultrasonic pulse through the wood product, measuring the transmission speed of the ultrasound pulse through the wood product, and determining the stiffness (same as MOE) and MOE from the acoustic energy measurement.

With regards to claim 7, **Stanish et al. '571** discloses at column 3 lines 34-36 obtaining the lengthwise shrinkage rate information from a third party (such information would inherently include a data value indicative of a reactive force component to the lengthwise shrinkage if such was desired).

With regards to claim 8, **Stanish et al. '571** discloses at column 8 line 55 –column 9 line 20 obtaining a plurality of first data values (and therefore a plurality of second data values when more than one test is performed) at predetermined locations along the wood product.

With regards to claim 9, **Stanish et al. '571** discloses at column 8 lines 10-20 the different wood products which can be tested, including but not limited to standing trees, raw logs, processed logs, processed lumber, manufactured wood products, and engineered wood products.

With regards to claim 10, **Stanish et al. '571** discloses determining information about wood chemistry (and therefore, chemical composition) at column 14 lines 37-43.

With regards to claim 14, **Stanish et al. '571** discloses at column 9 lines 34-44 that shrinkage rates can be obtained by obtaining a sample of the wood product at the measuring location and analyzing the sample of the wood product.

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With regards to claim 17, **Stanish et al. '571** discloses at column 14 lines 24 – 58 obtaining a correlation between lengthwise shrinkage and both the reactive force component to lengthwise shrinkage (acoustic velocity measurement) and the motive force component (IR spectroscopy) to lengthwise shrinkage for the wood product and calculating the lengthwise shrinkage by converting the first and second data values with the obtained correlation.

With regards to claims 18-20, **Stanish et al. '571** discloses at column 8 line 41 – column 9 line 20 testing the wood product at plural locations with the plural locations being separated by a predetermined distance and wherein a first or second data value is obtained at at least two locations along the wood product.

With regards to claim 21, **Stanish et al. '571** discloses at column 8 line 42 –column 9 line 20 obtaining a plurality of first data values (and therefore a plurality of second data values when more than one test is performed) at predetermined locations along the wood product and then determining the lengthwise shrinkage rates at each of the plurality of measuring locations.

With regards to claims 22-24, **Stanish et al. '571** discloses obtaining at least one resistive force component measurement (see column 14 lines 24-58), obtaining at least one driving force component measurement (see column 14 lines 24-58), obtaining a correlation between the lengthwise shrinkage and both resistive force and driving force (see column 14 lines 24-58), and calculating lengthwise shrinkage in the wood product based on the correlation and the resistive force component and driving force component measurements, where the resistive force component measurement is an acoustic measurement (acoustic/ultrasonic velocity) and the driving force component measurement is a chemical composition measurement (IR spectroscopy measurement).

Allowable Subject Matter

5. Claims 11-13 and 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 25-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
7. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and/or suggest a method of measuring lengthwise shrinkage of a wood product which combines a measurement of the acoustic velocity within the wood product at predetermined locations with either 1) a hemicellulose content measurement, 2) a galactan content measurement, or 3) a ratio of galactan to glucan of the wood product. The prior art of record also fails to teach and/or suggest a method of measuring lengthwise shrinkage of a wood product which combines a measurement of the acoustic velocity within the wood product at predetermined locations with measurements performed by an anion exchange chromatography of the wood product at the measuring locations.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bechtel et al. (US 4,926,350) discloses a non-destructive testing method for lumber.

Schajer et al. (US 4,941,357) discloses a method for estimating the strength of wood.

Pellerin et al. (US 5,024,091) discloses a non-destructive evaluation of structural members.

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Bechtel et al. (US 5,394,097) discloses a dielectric sensor for testing lumber and other products.

Nishina et al. (JP 2000-105228) discloses a wood material strength measuring apparatus.

Andrews et al. (WO 00/36413) discloses log-cutting procedures.

Snyder et al. (CA 2,316,046) discloses an unfinished wood product cutting optimization system.

Andrews et al. (WO 01/77669 A1) discloses a method of estimating timber stiffness profiles.

Stanish et al. (US 6,305,224 B1) discloses a method for determining warp potential in wood.

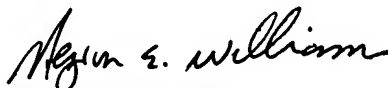
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rose M. Miller whose telephone number is 571-272-2199. The examiner can normally be reached on Monday - Friday, 7:30 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RMM
6 June 2005



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800